LAPORAN TUGAS PEMROGRAMAN BERBASIS FRAMEWORK

Modul 6
Redux

Disusun Oleh :

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Praktikum – Bagian 1: Membuat Redux

Langkah	Keterangan
| **1** | Buat project react app baru dengan syntax "npx create-react-app app-name" dan install dependencies yang dibutuhkan yaitu react-redux dan redux<br><br>```
PS D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek> npx create-react-app redux
npx: installed 67 in 11.934s

Creating a new React app in D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek\redux.

Installing packages. This might take a couple of minutes.
Installing react, react-dom, and react-scripts with cra-template...

> core-js@2.6.12 postinstall D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek\redux\node_modules\babel-runtime\node_modules\core-js
> node -e "try{require('./postinstall')}catch(e){}"

  npm run eject
    Removes this tool and copies build dependencies, configuration files
    and scripts into the app directory. If you do this, you can't go back!

We suggest that you begin by typing:

  cd redux
  npm start

Happy hacking!
PS D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek>
```<br><br>```
PS D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek\redux> npm install react-redux
npm WARN tsutils@3.21.0 requires a peer of typescript@>=2.8.0 || >= 3.2.0-dev || >= 3.3.0-dev || >= 3.4.0-dev || >= 3.5.0-dev || >= 3.6.0-dev || >
= 3.6.0-beta || >= 3.7.0-dev || >= 3.7.0-beta but none is installed. You must install peer dependencies yourself.
npm WARN react-redux@7.2.2 requires a peer of redux@^2.0.0 || ^3.0.0 || ^4.0.0-0 but none is installed. You must install peer dependencies yoursel
f.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.3.2 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.3.2: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32"
,"arch":"x64"})
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.13 (node_modules\watchpack-chokidar2\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32
","arch":"x64"})
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.13 (node_modules\webpack-dev-server\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32
","arch":"x64"})

+ react-redux@7.2.2
added 2 packages from 2 contributors and audited 1952 packages in 19.337s

133 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

PS D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek\redux>
```<br><br>```
PS D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek\hunayn-app> npm install redux
npm WARN tsutils@3.21.0 requires a peer of typescript@>=2.8.0 || >= 3.2.0-dev || >= 3.3.0-dev || >= 3.4.0-dev || >= 3.5.0-dev || >= 3.6.0-dev || >
= 3.6.0-beta || >= 3.7.0-dev || >= 3.7.0-beta but none is installed. You must install peer dependencies yourself.
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@2.3.2 (node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@2.3.2: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32"
,"arch":"x64"})
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.13 (node_modules\watchpack-chokidar2\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32
","arch":"x64"})
npm WARN optional SKIPPING OPTIONAL DEPENDENCY: fsevents@1.2.13 (node_modules\webpack-dev-server\node_modules\fsevents):
npm WARN notsup SKIPPING OPTIONAL DEPENDENCY: Unsupported platform for fsevents@1.2.13: wanted {"os":"darwin","arch":"any"} (current: {"os":"win32
","arch":"x64"})

+ redux@4.0.5
```<br>```
+ redux@4.0.5
added 2 packages from 1 contributor and audited 1954 packages in 18.626s

133 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

PS D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek\hunayn-app>
```<br><br>Buat Folder dalam src yaitu Action |

```
PS D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek\redux\src> mkdir Action


    Directory: D:\data\Users\User\Documents\College\Framework Prog\framework_prog\6thWeek\redux\src


Mode                LastWriteTime         Length Name
----                -------------         ------ ----
d-----        3/15/2021   7:11 AM                Action
```

Beri nama actionCreator.js

```
6thWeek > hunayn-app > src > actions > JS actionCreator.js > ...
   1   import {
   2     ADD_TODO,
   3     REMOVE_TODO,
   4     TOGGLE_TODO,
   5     SET_VISIBILITY_FILTER,
   6   } from "./actionsTypes";
   7   let TodoId = 2;
   8   export const addTodo = (text) => ({
   9     type: ADD_TODO,
  10     id: TodoId++,
  11     text,
  12   });
  13   export const deleteTodo = (id) => ({
  14     type: REMOVE_TODO,
  15     id: id,
  16   });
  17   export const toggleTodo = (id) => ({
  18     type: TOGGLE_TODO,
  19     id: id,
  20   });
  21   export const setVisibilityFilter = (filter) => ({
  22     type: SET_VISIBILITY_FILTER,
  23     filter,
  24   });
  25
```

Masih dalam Folder Action buatlah file actionsTypes.js

```
6thWeek > hunayn-app > src > actions > JS actionsTypes.js > ...
   1   export const ADD_TODO = "ADD_TODO";
   2   export const TOGGLE_TODO = "TOGGLE_TODO";
   3   export const REMOVE_TODO = "REMOVE_TODO";
   4   export const SHOW_ALL = "SHOW_ALL";
   5   export const SHOW_COMPLETED = "SHOW_COMPLETED";
   6   export const SHOW_ACTIVE = "SHOW_ACTIVE";
   7   export const SET_VISIBILITY_FILTER = "SET_VISIBILITY_FILTER";
   8
```

Kemudian dalam folder src buatlah folder dengan nama containers dan buatlah file dengan judul
CreateTodo.js

```
 1  import React, { Component } from "react";
 2  import { connect } from "react-redux";
 3  import { addTodo } from "../actions/actionCreator";
 4  import { bindActionCreators } from "redux";
 5  class CreateTodo extends Component {
 6    constructor(props) {
 7      super(props);
 8      this.state = {
 9        todotext: "",
10      };
11      this.onChangeTodoText = this.onChangeTodoText.bind(this);
12    }
13    onChangeTodoText(e) {
14      this.setState({
15        todotext: e.target.value,
16      });
17    }
18    render() {
19      return (
20        <div className="form-group row">
21          <div className="col-sm-10">
22            <input
23              onChange={this.onChangeTodoText}
24              value={this.state.todotext}
25              type="text"
26              className="form-control"
27              id="inputEmail3"
```

```
27              id="inputEmail3"
28              placeholder="add todo here"
29            />
30            <button
31              type="button"
32              onClick={() => this.setState({ todotext: "" })}
33              style={{ marginTop: "25px", marginRight: "15px" }}
34              className="btn btn-danger"
35            >
36              Cancel
37            </button>
38            <button
39              type="button"
40              onClick={() => {
41                this.props.addTodo(this.state.todotext);
42                this.setState({ todotext: "" });
43              }}
44              style={{ marginTop: "25px" }}
45              className="btn btn-success"
46            >
47              Add Todo
48            </button>
49          </div>
50        </div>
51      );
52    }
53  }
```

```
52    }
53  }
54  const mapDispatchToProps = (dispatch) => {
55    return bindActionCreators(
56      {
57        addTodo,
58      },
59      dispatch
60    );
61  };
62  export default connect(null, mapDispatchToProps)(CreateTodo);
63
```

Masih dalam folder containers buatlah file dengan judul Table.js

```js
import React, { Component } from "react";
import { connect } from "react-redux";
import {
  deleteTodo,
  toggleTodo,
  setVisibilityFilter,
} from "../actions/actionCreator";
import { SHOW_ALL, SHOW_COMPLETED, SHOW_ACTIVE } from "../actions/actionsTypes";
import { bindActionCreators } from "redux";
class Table extends Component {
  render() {
    return (
      <div className="col-lg-10 offset-lg-1 col-md-10 col-sm-12 col-xs-12">
        <nav style={{ marginTop: "60px" }}>
          <ol className="breadcrumb">
            <li
              className={
                "breadcrumb-item " +
                (this.props.visibilityFilter === SHOW_ALL ? "active" : "")
              }
              onClick={() => this.props.setVisibilityFilter(SHOW_ALL)}
            >
              All
            </li>
            <li
              className={
                "breadcrumb-item " +
```

```js
                "breadcrumb-item " +
                (this.props.visibilityFilter === SHOW_COMPLETED ? "active" : "")
              }
              onClick={() => this.props.setVisibilityFilter(SHOW_COMPLETED)}
            >
              Completed
            </li>
            <li
              className={
                "breadcrumb-item " +
                (this.props.visibilityFilter === SHOW_ACTIVE ? "active" : "")
              }
              onClick={() => this.props.setVisibilityFilter(SHOW_ACTIVE)}
            >
              Active
            </li>
          </ol>
        </nav>
        {this.props.todos.length !== 0 ? (
          <table
            style={{ marginTop: "60px" }}
            className="table table-hover table-dark"
          >
            <thead>
              <tr>
                <th scope="col">Todos</th>
                <th scope="col">Actions</th>
```

```js
                <th scope="col">Actions</th>
              </tr>
            </thead>
            <tbody>
              {this.props.todos.map((todo) => (
                <tr key={todo.id}>
                  <td
                    style={{
                      textDecoration: todo.completed ? "line-through" : "none",
                    }}
                  >
                    {todo.text} {todo.completed === true ? "(completed)" : ""}
                  </td>
                  <td>
                    <span
                      className="fas fa-minus-circle"
                      onClick={() => this.props.deleteTodo(todo.id)}
                      style={{
                        color: "white",
                        fontSize: "20pt",
                        marginRight: "20px",
                      }}
                    />
                    <span
                      className="fas fa-check-circle"
                      onClick={() => this.props.toggleTodo(todo.id)}
                      style={{ color: "white", fontSize: "20pt" }}
```

5

```jsx
 79                          style={{ color: "white", fontSize: "20pt" }}
 80                        />
 81                      </td>
 82                    </tr>
 83                ))}
 84              </tbody>
 85            </table>
 86          ) : (
 87            <div
 88              style={{ marginTop: "50px" }}
 89              className="col-lg-10 col-md-10 col-xs-12 col-sm-12 offset-lg-1"
 90            >
 91              <div className="alert alert-danger" role="alert">
 92                Todo List is empty or Filter results show no results
 93              </div>
 94            </div>
 95          )}{" "}
 96        </div>
 97      );
 98    }
 99  }
100  const getVisibleTodos = (todos, filter) => {
101    switch (filter) {
102      case SHOW_ALL:
103        return todos;
104      case SHOW_COMPLETED:
105        return todos.filter((t) => t.completed);
```

```jsx
105        return todos.filter((t) => t.completed);
106      case SHOW_ACTIVE:
107        return todos.filter((t) => !t.completed);
108      default:
109        throw new Error("Unknown filter: " + filter);
110    }
111  };
112  const mapStateToProps = (state) => {
113    return {
114      todos: getVisibleTodos(state.todos, state.visibilityFilter),
115      visibilityFilter: state.visibilityFilter,
116    };
117  };
118  const mapDispatchToProps = (dispatch) => {
119    return bindActionCreators(
120      {
121        deleteTodo,
122        toggleTodo,
123        setVisibilityFilter,
124      },
125      dispatch
126    );
127  };
128  export default connect(mapStateToProps, mapDispatchToProps)(Table);
129
```

Edit index.js dengan source code berikut ini

```jsx
 1  import React from "react";
 2  import ReactDOM from "react-dom";
 3  import { Provider } from "react-redux";
 4  import { createStore, applyMiddleware, compose } from "redux";
 5  import MainReducer from "./reducers/MainReducer";
 6  // import App from "./App";
 7  import Table from "./containers/Table";
 8  import registerServiceWorker from "./registerServiceWorker";
 9  import CreateTodo from "./containers/CreateTodo";
10
11  const store = compose(
12    window.devToolsExtension ? window.devToolsExtension() : (f) => f
13  )(createStore)(MainReducer);
14
15  ReactDOM.render(
16    // <React.StrictMode>
17    //   <App />
18    // </React.StrictMode>,
19    // document.getElementById("root")
20
21    <Provider store={store}>
22      <CreateTodo />
23      <Table />
24    </Provider>,
25    document.getElementById("root")
26  );
27  registerServiceWorker();
28
```

Buat folder dalam src dengan nama reducers dan beri nama file FilterReducer.js dan ketikkan program dibawah ini :

```js
import { SHOW_ALL, SET_VISIBILITY_FILTER } from "../actions/actionsTypes";
const visibilityFilter = (state = SHOW_ALL, action) => {
  switch (action.type) {
    case SET_VISIBILITY_FILTER:
      return action.filter;
    default:
      return state;
  }
};
export default visibilityFilter;
```

Masih didalam folder reducers buatlah file dengan namaTodoReducer.js

```js
// if you want to show initial data :)
const INITIAL_DATA = [
// {
// id: 0,
// text: 'Walk the Dog',
// },
// {
// id:1,
// text: 'learn Redux',
// },
// ]
import { ADD_TODO, REMOVE_TODO, TOGGLE_TODO } from "../actions/actionsTypes";
const INITIAL_DATA = [];
const TodoReducer = (state = INITIAL_DATA, action) => {
  switch (action.type) {
    case ADD_TODO:
      return [
        ...state,
        {
          id: action.id,
          text: action.text,
          completed: false,
        },
      ];
    case TOGGLE_TODO:
      return state.map((todo) =>
        todo.id === action.id ? { ...todo, completed: !todo.completed } : todo
```
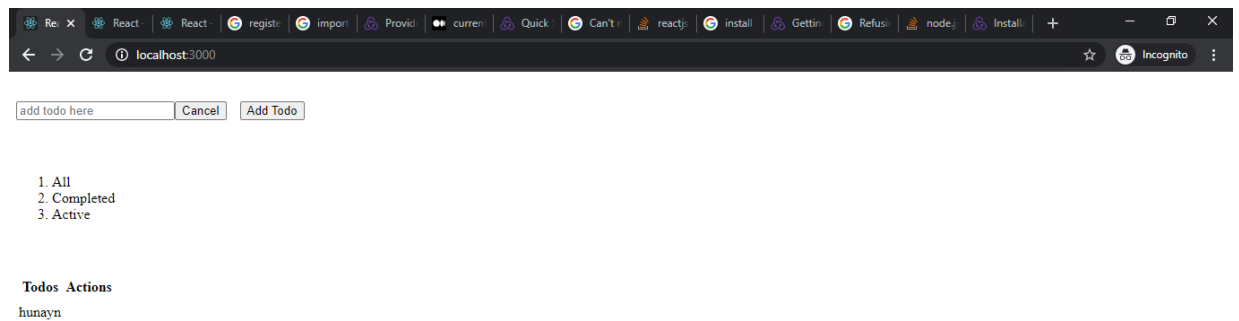
```js
      return [
        ...state,
        {
          id: action.id,
          text: action.text,
          completed: false,
        },
      ];
    case TOGGLE_TODO:
      return state.map((todo) =>
        todo.id === action.id ? { ...todo, completed: !todo.completed } : todo
      );
    case REMOVE_TODO:
      const numIndex = parseInt(action.id);
      return state.filter((todo) => todo.id !== numIndex);
    default:
      return state;
  }
};
export default TodoReducer;
```

Buat file dengan nama MainReducer.js dan simpan

7

```
6thWeek > hunayn-app > src > reducers > JS MainReducer.js > ...
   1   import { combineReducers } from "redux";
   2   import todos from "./TodoReducer";
   3   import visibilityFilter from "./FilterReducer";
   4   export default combineReducers({
   5     todos,
   6     visibilityFilter,
   7   });
   8
```

Running semua program dengan npm start dan liat hasilnya dan laporkan didalam laporan

add todo here   Cancel   Add Todo

1. All
2. Completed
3. Active

Todos Actions
hunayn

Link GitHub : https://github.com/hunaynr/framework_prog/tree/main/6thWeek

Link Youtube : https://youtu.be/1BzGXvEdArs